

CLAIMS

What is claimed is:

1. A video signal reproducing apparatus, which transforms a format of an input video signal, generates horizontal and vertical synchronous signals, and displays the transformed video signal, comprising:
 - a measurer measuring a period of the horizontal synchronous signal;
 - a comparator comparing the measured period of the horizontal synchronous signal with a predetermined reference range; and
 - an adjustor adjusting a period of a clock signal, for producing the horizontal synchronous signal, if the measured period of the horizontal synchronous signal fails to fall within the predetermined reference range.
2. The video signal reproducing apparatus of claim 1, wherein if the measured period of the horizontal synchronous signal is above the predetermined reference range, the adjustor reduces the period of the clock signal and reproduces the horizontal synchronous signal using the reduced clock signal period.
3. The video signal reproducing apparatus of claim 1, wherein if the measured period of the horizontal synchronous signal is under the predetermined reference range, the adjustor increases the period of the clock signal and reproduces the horizontal synchronous signal using the increased clock signal period.
4. A video signal reproducing apparatus comprising:
 - a converter converting an input analog video signal into a digital video signal;
 - a line buffer storing a display line of the digital video signal;
 - a scaler transforming a format of the digital video signal and then outputting the transformed digital video signal;
 - a controller controlling timing of an inputting the digital video signal into the line buffer and timing of outputting the display line of the digital video signal from the line buffer to the scaler, and producing horizontal and vertical synchronous signals; and

a horizontal synchronous signal detector measuring a period of the horizontal synchronous signal, adjusting a period of a clock signal for producing a new horizontal synchronous signal according to the measured period, and providing the controller with the adjusted period of the clock signal,

wherein the controller produces the new horizontal synchronous signal using the adjusted clock signal.

5. The video signal reproducing apparatus of claim 4, wherein the controller generates a reset signal immediately after generating the vertical synchronous signal, keeps a distance from the timing of inputting to the timing of outputting the digital video signal into and from the line buffer, and starts counting until the new horizontal synchronous signal appears.

6. The video signal reproducing apparatus of claim 5, wherein the adjusting of the period of the clock signal is performed by adding or subtracting the counted interval to/from the period of the horizontal synchronous signal.

7. The video signal reproducing apparatus of claim 4, wherein the horizontal synchronous signal detector comprises:
a measurer measuring the period of the horizontal synchronous signal;
a comparator comparing the measured period of the horizontal synchronous signal with a predetermined reference range; and
an adjustor adjusting the period of the clock signal for producing the new horizontal synchronous signal, if the measured period of the horizontal synchronous signal [does not]fails to fall within the predetermined reference range.

8. The video signal reproducing apparatus of claim 6, wherein if the measured period of the horizontal synchronous signal is above the predetermined reference range, the adjustor reduces the period of the clock signal and produces the new horizontal synchronous signal using the reduced clock signal period.

9. The video signal reproducing apparatus of claim 6, wherein if the measured period of the horizontal synchronous signal is under the predetermined reference range, the adjustor increases the period of the clock signal and produces the new horizontal synchronous signal using the increased clock signal period.

10. A method of reproducing a video signal, comprising:
measuring a period of a horizontal synchronous signal;
comparing the measured period with a predetermined reference range; and
adjusting a period of a clock signal for producing the horizontal synchronous signal to reproduce a new horizontal synchronous signal if the measured period of the horizontal synchronous signal fails to fall within the predetermined reference range.

11. The method of claim 9, wherein in the reproduction of the new horizontal synchronous signal, if the measured period of the horizontal synchronous signal is above the predetermined reference range, the period of the clock signal is reduced and the new horizontal synchronous signal is reproduced based on the reduced clock signal period.

12. The method of claim 9, wherein in the reproduction of the new horizontal synchronous signal, if the measured period of the horizontal synchronous signal is under the predetermined reference range, the period of the clock signal is increased and the horizontal synchronous signal is reproduced based on the increased clock signal period.

13. A horizontal synchronous signal adjusting apparatus for a video signal reproducing apparatus that generates horizontal and vertical synchronous signals and displays a corresponding video signal, comprising:

a measurer measuring a period of a horizontal synchronous signal;
a comparator comparing the measured period of the horizontal synchronous signal with a predetermined reference range; and
an adjustor adjusting a period of a clock signal, used to generate horizontal synchronous signals by the video signal reproducing apparatus, if the measured period of the horizontal synchronous signal fails to fall within the predetermined reference range.

14. The horizontal synchronous signal adjusting apparatus of claim 13, wherein if the measured period of the horizontal synchronous signal is above the predetermined reference range, the adjustor reduces the period of the clock signal and reproduces the horizontal synchronous signal using the reduced clock signal period.

15. The horizontal synchronous signal adjusting apparatus of claim 13, wherein if the measured period of the horizontal synchronous signal is under the predetermined reference range, the adjustor increases the period of the clock signal and reproduces the horizontal synchronous signal using the increased clock signal period.

16. A method of reproducing a video signal, comprising:
measuring a period of a horizontal synchronous signal;
comparing the measured period with a predetermined reference range; and
adjusting a period of a clock signal for producing the horizontal synchronous signal to reproduce a new horizontal synchronous signal, if the measured period of the horizontal synchronous signal fails to fall within the predetermined reference range, and to prevent a reversal of write and read timings of a display line buffer of a corresponding video reproducing apparatus.